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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/538,317

11/01/2005

Emilio Vitale

163-682

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EXAMINER

LEWIS, TISHA D

ART UNIT	PAPER NUMBER
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3681

MAIL DATE	DELIVERY MODE
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07/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,317

Applicant(s)

VITALE ET AL

Examiner

TISHA D. LEWIS

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

The following is a first action on the merits of application serial no. 10/538,317 filed on November 1, 2005.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement filed on June 13, 2005 has been considered.

Claim Objections

Claim 15 is objected to because of the following informalities:

-the second occurrence of "Claimed" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masut 5,193,634 in view of Liau 6,109,127. As to claims 1, 4 and 14, Masut discloses at least one drive wheel (26), an internal combustion engine (10), a propeller shaft (16) connected angularly to the drive wheel, a clutch (14) and a

transmission (25) having a drive element (11) connected angularly to a drive shaft of the engine and a driven element (12) connected to the propeller shaft, an electric machine (20) which can be operated with or instead of the engine, the clutch is interposed between the driven element and the propeller shaft and has a drive member (13) connected to the driven element and a driven member (15) connected to the propeller shaft, Masut does not disclose a rotor of the electric machine connected permanently to the driven member of the clutch.

Liau discloses at least one drive wheel (via 421), an internal combustion engine (200), a propeller shaft (420) connected angularly to the drive wheel, a clutch (50) and a transmission (23, 24) having a drive element (25) connected angularly to a drive shaft of the engine and a driven element (41) connected to the propeller shaft, an electric machine (300) which can be operated with or instead of the engine wherein the clutch has a driven member (52) connected angularly and permanently to a rotor (not referenced) of the electric machine.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide Masut with the rotor and clutch connection in view of Liau to provide more space in the axial direction by having less components connecting the clutch and machine.

As to claim 2, Masut discloses the transmission being in the form of a pulley CVT.

As to claim 3, Masut discloses the clutch driven member being in the shaft of a bell (drum 15).

As to claim 15, Masut discloses the vehicle being a small vehicle as in a scooter.

Claims 5 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masut in view of Liau as applied to claim 1 above, and further in view of GU 6,659,910 and DE 10036966. As to claim 5, Masut in view of Liau disclose an electric machine, but doesn't disclose if the machine is reversible.

GU discloses a hybrid vehicle having a motor (50) which drives a clutch drum in forward or reverse.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the electric machine of Masut in view of Liau as a reversible motor in view of GU to drive vehicle in opposite directions without the need to gearing or additional clutches.

As to claims 9-13, Masut in view of Liau disclose multiple operating modes for the engine and electric machine, but does not disclose a generator.

GU discloses an electric generator (23) driven by an engine.

DE discloses a hybrid vehicle having a control unit that is a selecting means for a plurality of modes for an engine and electric machine according to a plurality of input signals including accelerator (36) and brake (38).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide Masu in view of Liau with a generator in view of GU to generate electricity and control timing and speed of the engine and provide control of

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the engine and electric machine in view of DE to control power to the drive wheels according to specific vehicle parameters.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masut in view of Liao as applied to claim 1 above, and further in view of EP 0908343 and Tsutsumikoshi 6,591,934.

Masut in view of Liao disclose a drive shaft and clutch, but do not disclose a coupling to connect the two.

EP discloses a hybrid vehicle having a coupling (5) connecting a drive shaft of an engine to a drive member of a clutch.

Tsutsumikoshi discloses a hybrid vehicle having a coupling (120) between a drive shaft of an engine and a clutch controlled electromagnetically.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide Masut in view of Liao with a coupling in view of EP and Tsutsumikoshi to provide electrical selective connection between the engine and powertrain only when needed and reduce parasitic losses associated with hydraulic controlled couplings.

Allowable Subject Matter

Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Heiartz et al 7,004,296

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 571-272-7093. The examiner can normally be reached on M-F 7:30 AM TO 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Tdl

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July 22, 2007


TISHA LEWIS
PRIMARY EXAMINER
Au 3681 7/22/07